

How to Train Grape Vines.

"At the meeting of the Michigan Pomological Society at Hillsdale, J. S. Woodward, of Lockport, N. Y., in an essay on training grape vines described the one among many systems in use which he thought required the least time to learn and the least time to carry out in practice. It is, said he, the one which the women of the household can easily execute, and which will give a maximum of fruit with a minimum of labor."

The second spring put two wires on trellis, let two eyes start from the top of the cane, train one each way, pinching laterals to a single leaf each. Some now become impatient and want a full crop of fruit the third year, which would be apt to permanently enfeeble the plant; the better way is to have patience and prune each cane to only three eyes. The object each time in letting three eyes remain when we want only two canes to grow is to insure having only two canes grow from each arm or spur, train only to the lower wire and let the other take the spur which you need not pinch the laterals unless some one is supposed to run rampant, in which case head it off. If the plant is a strong one, you may let each of the four canes growing the third year bear one, two or three clusters, which will be all the fruit prudent to attempt this year. Your vine now should be strong enough to bear a fair crop, and we must prune with reference to that. Cut back the cane growing on upper wire to three eyes again, but have the lower cane four feet long for fruiting. The spring of fourth year fill the trellis with wires; tie the long cane to the lower wire, training the shoots that grow from it perpendicular, tying to upper wires and leading off, just above the top wire; don't let the laterals grow more than two leaves; let the two canes that grow from the spur run along the upper wires of the trellis. In the fall of fourth year cut the bearing vine entirely out back to the arm from whence it grew, cut the best cane from the spur five feet long for bearing cane next season and cut the other back for a spur to produce wood for the sixth year. Thus go on each year, cutting out the bearing vine of that year and bending down in its place the best one grown from the spur the previous year and cutting the other to form a spur again for the next. In the spring of each year tie the bearing cane to lower wire and rub out all shoots that do not show fruit blades. You may also tie each shoot or cane grown from the spurs bearing fruit each year.

Keep the Farm Tools Sharp.

The Germantown Telegraph gives the following sensible hints on the sharpening of tools: "Too often these things are not thought of until the articles are wanted, when much valuable time is lost in putting in order what might as well have been done during the dull winter days. It has been computed that the same man can do as much in two days with a sharp scythe as in three days with one comparatively dull and the same expenditure in force. And it is just the same in regard to all other tools or implements, whether operated by hand, steam or horse power. The engineer continually oils the machinery, and a good saw or file is oil to hand implements. We know one who has a great deal of hand hoeing to do by hired labor, and he believes that the continued use of the file on the hoes makes a difference of nearly one-half in the labor. His calculation is that every ten-cent file he buys saves him ten dollars in his laborer's bills. Now is the time to look after the spades, scythes, hoes, chisels, saws, etc. A good grindstone and a set of files are among the best of farm investments, especially at this season. The best of all forehandness is that which prepares in advance a full set of good and well-repaired tools to work with."

Vegetable Loafers.

Vegetable loafers, as weeds of a troublesome growth have been appropriately named, are legion in number and the fight against them should begin early and continue unceasingly throughout the season.

To carry on an intelligent warfare against noxious weeds it is necessary to know somewhat of their method of propagation. White daisies, iron-weed and other pests which spread from both root and seed ought to be dug out of the ground previous to the maturity of their blossoms, in order to destroy the seed crop for that year as well as the germ which produces the stems and blossoms the next. This is accomplished with the greatest ease directly after a rain when the ground is soft. When enemies of this character have multiplied themselves to such an extent as to render digging out impracticable the only remedy left is to plow up the infested ground before the seed matures.

Burdocks which spring up quickly after having been mown above ground will soon succumb, provided the cutting is done a few inches below the surface. Elders and briars that thrive persistently in neglected places are in time destroyed by mowing down, twice a year during May and August. Plowing up the land and harrowing out the roots is an effective mode, especially when the ground is afterward planted with some such crop as corn.

Milkweed may be exterminated by constant cutting. Plaintain will die out if not permitted to ripen its seed for two years. That most troublesome of plants, Canada thistle can be conquered by choking and smothering it with some crop which overtops it and deprives its leaves of sufficient light and air. Rye has been sown on thistle-infested fields with good results, especially when it was followed with clover and timothy. The mowings the thistles receive when the grass is cut assist in enfeebling their growth. May and August are the best months in which to mow weeds that die from loss of foliage.

There is much to be said both for and against summer fallow for the destruction of weeds. A fallow certainly reduces the pests, but so long as stock feed on weeds the land will again be seeded with them when manure is applied. Therefore the time never arrives when a farm is free from noxious growths of one kind or another which call for more or less fighting against them. The warfare, as has been intimated, must vary in kind with the nature and growth of the weed and be

unceasing. With constant culture, generous fertilization and the employment of clean seed, it is hardly possible for any weed, however tenacious of life, to gain possession of one's fields.—N. Y. World.

Manures.

Anything which, being added to the soil, directly or indirectly promotes the growth of plants, is a manure. Manure directly assists vegetable growth, either by entering into the composition of plants, by absorbing and retaining moisture from the atmosphere, or by absorbing from it nutritive gases. Manures indirectly assist the growth of plants, either by destroying vermin or weeds, by decomposing in the soil, by protecting plants from sudden changes of temperature, or by improving the texture of the soil. The manure from cows and all animals that chew the cud, is considered cold and suited to a light soil; that of horses, hogs and poultry is hot, and best suited to a cold, heavy soil. All new and fresh manure engenders heat during fermentation, and has a tendency to lighten the soil, while old, rotten manure is thought to render it more compact and firm. The manure of birds is richer than that of any other animal. Three or four hundred weight of manure of fowls, turkeys, etc., is equal to from fourteen to eighteen loads of animal manure. A thick coat of hog pen or barn yard manure spread on the garden and turned in every spring, will enrich, warm and lighten the ground better than any application of other manures. The principal animal manures are those of the horse, the hog, the cow and the sheep. Of these, the horse is the most valuable, in its fresh state, but it should be exposed as little as possible, as it begins to heat and lose its nitrogen immediately, as may be perceived by the smell; mix it with other manures, and cover it with absorbents as soon as possible. That of the hog comes next in value, while the cow is at the bottom of the list. The richer the food given to animals the more powerful is the manure. If animal manures are employed in a fresh state, they should be well mixed with the soil and given to course feeding crops, such as corn and the garden pea. Nearly all plants do better if the manure is composted and fully fermented before use. Bone dust mixed with ashes or pulverized charcoal and sown broadcast over the ground at the rate of three bushels per acre, is very beneficial, and the most valuable for turnips, cabbage, etc., and the quantity needed for an acre is so small, that the expense is less than almost any application. Common salt, at the rate of six bushels per acre, sowed in the spring, on lands distant from the sea shore, not only promotes fertility, but it is very useful in destroying worms and slugs. Marl, where it can be obtained, may be supplied with advantage, especially to sandy soils. Soot is excellent to drive off insects and vermin. Very little of this can be obtained, but it should be carefully preserved and applied in small quantities to cabbages, turnips, cucumbers, melons, squashes and all plants infected with insects. Charcoal renders the soil light and friable, and gives it a dark color and additional warmth for early crops. Where composted with night soil it becomes *poudrette*, and is second only to guano as a fertilizer. Leaves, straw rubbish thrown together, and moistened with a mixture of lime and salt, if kept damp until decomposed, forms the best known manure for trees and shrubs. Swamp muck, mixed with salt, lime, or leached ashes, is of value where it can be obtained, but of still more value is the leaf mold, or black surface soil of the woods. For the vegetable garden, it is best composted with fresh animal manure, but can be applied directly to most plants in the flower garden, many of which will not flourish unless this material is present in the soil. Tanbark, decayed chips, sawdust and shavings, covered with soil are of great advantage to potatoes! Wood ashes, leached or unleached, may be used with decided benefit as a top dressing to most growing vegetables, especially onions and turnips. Plaster sown upon growing crops is good for turnips, cabbages, beans, cucumbers, squashes, melons and all broad leaved plants.

Japanese Fans.

A Japanese journal furnishes some interesting information respecting the fabrication of fans. Here, as in many other branches of industry, the principle of the division of labor is rigorously observed. The bamboo sticks are prepared by workmen in their own homes, while the incised ornaments of the lower portion of the fan are confined to more skillful hands, who dress the handles according to the sketches given by the designer. In the same way, the artist gives to the engraver the motives which, in his idea, will prevail the next season and will insure a ready sale. He it is also who chooses the colors for the pieces already cut out, as also the color for each isolated detail, and, finally, the different decorations for the back of the fan. The paper made use of to insert the leaves of the fan is all Japanese; it is peculiarly suited for this purpose—so much so that an attempt to employ foreign paper had to be abandoned. The papers from America were tried, but rejected; but experts will tell one that the native paper used in this branch of industry is much inferior to that used in the past. Formerly, when the country had no relations with the outer world, the most expensive fan made cost scarcely a penny. Since then, however, there have been numerous commissions for much larger sums. The current price of ordinary fans is for a hundred, from fifty yen or dollars to fifteen yen. The number of fans furnished for the Philadelphia Exhibition of 1876, on commission, was no fewer than 800,000, the price of which was estimated at \$50,000. Formerly the fan trade rarely exceeded 10,000 articles yearly throughout the whole country, but during the last twelve months, though the date from which this period commences is not stated by our informant, there have been exported nearly 3,000,000 of articles from Hiogo and Yokohama. Highly appreciated as are the products of Hiogo, those of Tokio are by far the most esteemed, not alone for their beauty, but for their superior cheapness.—Cor. American Architect.

Hale's Execution as a Spy.

After the Long Island affair Washington was totally at a loss for proper intelligence and suggested every temporary expedient for securing it. Nothing but the East River being now between him and the powerful enemy, it was of the utmost importance that he should be warned in ample time of their advance. "As everything," he wrote to Heath at Kingsbridge, "in a manner depends upon obtaining intelligence of the enemy's motions, I do most earnestly entreat you and General Clinton to exert yourselves to accomplish this most desirable end. Leave no stone unturned, nor do not stick at expense, to bring this to pass, as I never was more uneasy than on account of my want of knowledge on this score. Keep constant look-outs," he adds, "with good glasses on some commanding heights that look well on to the other shore."

It was in this emergency, when a successful accomplishment of Washington's wishes would have been of the greatest use to the army, that Captain Hale stepped forward to offer his services. It happened that he had recently volunteered to act as one of the officers of Lieutenant-Colonel Thomas Knowlton's new corps of Rangers, organized to scout between the lines, feel the enemy's position and report directly to the Commander-in-Chief. Knowlton was a gallant officer, a near townsman of Hale's, and must have known his worth, or he could not have accepted him for the Rangers. Early in September, when Washington's suspense was keenest, the Colonel broached the matter of obtaining the desired information to his own officers, in the hope that some one of them might be able to do so. The suggestion appears to have deeply impressed Hale, who, after the interview with Knowlton went to talk the subject over with his fellow-officer and college friend Captain Wm. Hull, of Webb's regiment. This we know from Hull himself. The two Captains discussed the question of undertaking the role of a spy. Hull used every argument to dissuade Hale from the dangerous service, and appealed to him as a soldier not to run the risk of closing his promising career with an ignominious death. Hale, however, although fully sensible of the consequences of capture, could think of nothing but duty. He told Hull that for a year he had been attached to the army and had rendered no material service; that he wished to be useful; was influenced by the expectation of promotion or pecuniary reward; and so far as the peculiar duty in question was concerned he felt that "every kind of service necessary to the public good became honorable by being necessary."

Calmly and firmly deciding the question for himself, Hale soon after reported to Washington his readiness to enter the British lines in disguise. What instructions, what advice, what cautions he received from the General there are no records to tell us. These facts only we know certainly, that he suddenly disappeared from camp, passed up the Connecticut coast, changed his uniform for a school-master's garb, crossed to Huntington, Long Island, and then made his way to the enemy at Brooklyn and New York—never to return. After making satisfactory observations, taking sketches of works and writing his notes in Latin, he was on the point of returning to the Connecticut shore, when he was seized and held as a spy. A boat was to have met him at Huntington Bay, and on the morning of the 18th or 19th of September, as he was waiting near the shore, the supposed craft made its appearance; but he approached it only to find that it was a yawl from a British cruiser lying below, and that retreat on his part was impossible. Ordered to surrender, with the guns of the marines leveled at him he yielded to the situation, was taken to the man-of-war, conveyed to New York and there delivered to the military authorities.

At New York, Hale was brought before Sir William Howe, the English Commander-in-Chief. An American spy at that time was likely to receive but trifling consideration. Hale received none. Four years later when Andre was captured, every attention and comfort was accorded him by Washington's officers during his confinement and trial. He himself expressed his grateful appreciation of their tenderness. But Andre was the Adjutant-General of the British army and mixed up with Arnold and Clinton in a dazzling plot to obtain an American stronghold. He was out on "official" business. In addition, in 1780 both sides were treating each other with more military respect than in the first years of the war. In 1776 poor Hale was a wretched Continental rebel as well as spy—and punishment could be neither too swift nor too severe. Posted in 1776 an English officer caught in the American camp under Hale's circumstances, would have received little treatment, so far as immediate condemnation was concerned. In Hale's case certainly the treatment was summary as well as peculiarly heartless. The only relief in the picture is the noble bearing of the prisoner. Instead of attempting a defense, or explaining the papers found upon his person, he frankly declared his rank in Washington's army, and the object of his visit to the British camp. If tradition and meagre records are correct, the scene of his examination and sentence was the little greenhouse in the garden of old Beekman mansion, on Fifty-second Street near First Avenue, where Howe had fixed his headquarters. Upon this confession the British Commander—and it is difficult to see how he could have done otherwise—pronounced him a spy, and ordered his execution to take place on the following morning.

The "following morning" was Sunday, the 22d of September, 1776. Hale spent that night, whether at the jail (the present Hall of Records), or at some guard house, does not appear. One thing is known, that he was put into the care of a Provost-Marshal of a most inhuman sort, said to be the noted Cunningham, whose name afterward sent a shudder through every one who chanced to become his prisoner. As a spy, his fate was sealed. Hale requested that he might be attended by a clergyman, but this was refused by the Marshal; so too was his request for a Bible. On the fatal morning he was led out to the place of his execution,

which upon the best data at hand, appears to have been the Rutgers' Orchard, not far above Franklin Square, on East Broadway, and there calmly awaited his fate. Pending the preparations, an English officer received permission to have Hale remain in his tent where the latter found time to write letters to his mother and a comrade in the army.

When Andre walked to the scaffold in 1780, no sign of faintness escaped him, but bowing to all around, he said, at the closing moment, "Gentlemen, you will bear witness that I die with the firmness becoming a soldier." Eyewitnesses on the occasion have left the record that his self-possession throughout the trying scene was perfect. This was equally true of Hale, but Hale was far from being a professional soldier, and the thought of sustaining the character to the end seems not to have occurred to him. Andre could not believe the traditional courage of the British officer. Hale could not believe the cause he had voluntarily espoused, and when summoned from the tent where he had written the letters, to suffer his fate, his heart found spontaneous and unaffected utterance in words not to be forgotten, "I only regret," he said, to the few spectators present, "that I have but one life to lose for my country." Does any page in history furnish the example of a purer patriot than Hale?—Henry P. Johnston, in *Harper's Magazine* for June.

A Word to Mothers.

Not long since there came to our knowledge an instance of a young life blighted for want of that confidence which should exist between mothers and daughters. Could this girl, at whose character the poisoned arrow of suspicion had been unjustly aimed, have found a confidant in her mother, the ranking wound she received might have been medicated and healed. As a mother, she brooded in silence on the sorrow she could not intrude upon another, and under the pressure of her mental sufferings broke down both in mind and body and became an invalid for years. One plain, kind, frank talk with her mother, or with some friend capable of understanding and sympathizing with her trouble and of medicating sympathy with wise counsel would have saved her untold agony of mind and suffering of body.

There are a great many mothers who think that when a child is rightly fed and clothed and put in the way of getting a good education the mother's duty is discharged. They do not recognize themselves as the custodians of the souls of their children. They do not make themselves the mirror of their children's hearts, and see reflected in their own consciousness and knowledge day by day whatever goes on in those hearts. They do not cultivate that openness of communion and communication between themselves and their children that renders all concealments impossible. Now we believe that the mother should be as cognizant of the growth and condition of her child spiritually and intellectually as she is physically. She knows his clothes must be enlarged as his body enlarges, and that his diet must be changed as he grows older. Is it not more important that she should know when and where and how to enlarge the bounds of his spiritual nature and to give it room to expand and develop and rise higher and higher?

There are children so open-hearted and outspoken and care-free that there is little danger that "concealment, like a worm in the bud will feed" on their vitals. And there are reticent children, brooding children, sensitive children, of whose interior life it is almost impossible to get a glimpse. What loving, tender, constant, wholesome sympathy such children need, but how often they are left to themselves to be consumed by morbid, unhealthy, cankered and spoiled. If some gentle but firm hand—a mother's hand—would insist on opening the closed doors of their hearts, on letting the light of sympathy and the sunshine of free communion into the hidden recesses of their souls, the darkness of their thoughts would vanish, perplexing questions would be solved, the spectres of doubt and discouragement that haunt them would be laid.

That girl who finds a confidant in her mother is safe. That boy whose heart is an open book to his mother is safe. More than this, the wise and skillful mother will learn how to possess herself in such a way of the heart of her child, that all the secret recesses of that heart will be opened to her. And it is of infinitely more importance to the child that his best friend should have a pass-key to unlock every innermost apartment of his spiritual nature than that the body should be nurtured ever so carefully.

"These things ye should have done and not have left the others undone." It often happens that the father is to the child what we have idealized the mother as being. It matters little which parent becomes the custodian of the young emotional and intellectual nature. Happy is the son and happier is the daughter who finds in both parents a wise, counselor, confidant, friend. That parent who wisely improves the opportunities that daily arise in the ordinary course of life to elicit the opinions, experiences, ideas, hopes, fears, ambitions, of the children under his or her care will have no difficulty in reading them as an open page. Children should be encouraged to express themselves freely to their parents; to tell their dreams even, both waking and sleeping; to talk about their religious views and thoughts; to ask God aloud for what they need with as little shame-facedness as they ask their parents for bread or clothes or toys. Young hearts that thus lie open to the sunshine of sympathy and of appreciation, will not be corroded by festering cares or griefs and will readily recover from those wounds and bruises which none subject to mortal ills can escape.—N. Y. Tribune.

At Shrewsbury, England, a fortnight ago Emma Fawcett, the proprietress of a circus, was fined eight dollars and costs for having taken on Sunday ten vans and thirty horses through the town between the hours of twelve and one. The by-laws under which the fine was imposed prohibit the driving of any beast, animal, cattle, poultry wagon or cart, laden or unladen, through the streets on the Lord's Day, and the highest penalty for the offense is twenty-five dollars.

For Young Readers.

DOROTHY OR BARBARA—WHICH?

DOROTHY DUMP.
Dorothy Dump, Dorothy Dump,
Sat in her palaces, forsooth;
She ate honey and counted her money,
And mopped from morn to morn.
"What a delicious world!" said Dorothy Dump;
"I wish I had never been born!"
Who'll be Dorothy Dump?"

BARBARA BRIGHT.
Barbara Bright, Barbara Bright,
Toiled for the wretched and poor;
She gave them money and fed them with honey,
And taught them how to be true.
"What a beautiful world!" said Barbara Bright;
"To good to be living, I'm sure!"
Who'll be Barbara Bright?
—St. Nicholas.

THE LANGUAGE OF SHIPS.

Some landmen may be inclined to question us when we say that not only can ships speak, but they can also carry on a long conversation when they are miles apart and winds are roaring and seas tossing between them.

A barque sailed from Trieste, in Austria, to New York not long ago, and passed many vessels on the voyage, with all of which she spoke; merely saying "good-day" to some; stopping to ask the bearings, destinations and names of others; but in one instance, when her provisions were running short, she held forth for half an hour, stating this to a steamer bound in an opposite direction, which replenished her stores.

Perhaps you can guess how the communications are made; it is by flags, which in various combinations answer the purposes of a complete vocabulary. Let us suppose now that the barque we have mentioned is named the Mary Edson. As the steamer approached she dipped her national ensign as a greeting, and then hoisted five flags. One of the quartermasters on the steamer, seeing the signal, obtained a book from the wheel-house, and on one of the front pages found, among many others, colored reproductions of these flags. Opposite to the picture of the highest flag shown by the Edson was the figure nine; opposite the next below the figure seven; opposite the third the figure two; opposite the fourth the figure eight, and opposite the lowest of all the figure one. The flags, then, gave the number 97281, and opposite this on another page of the book was the name of the sailing ship, her port of register, tonnage and owners. The steamer by other flags gave her name; and had all been well both vessels would have proceeded, and on arriving at their destination given the newspapers a brief mention of their meeting; but, as we have said, some strong westerly gales having delayed the barque she wanted some provisions, and by simply hoisting one other flag conveyed the information, which was at once acknowledged by a boat load of potatoes, flour and salt beef.

Almost any question can be asked or answered at sea, and one flag in some instances speaks a whole sentence. When two flags of a certain color and shape are hoisted they mean, "What ship is that?" Two similar flags enable one Captain to tell another approaching a dangerous coast that he is steering with danger. Three flags ask one Captain to take a letter from another, or tell him that a ship has lost her mate.

The flags are used both as numerals and as an alphabet, and in various combinations no little eloquence is possible to them. Captain Marryat, the charming author of "Peter Simple," "Midshipman Easy," "Jacob Faithful" and other stories, invented a signal code which has been in almost general use. Ten flags are numbered in the book from one to ten. The first is a square white flag with a blue patch in the center; the second is composed of blue, white and blue bars; the third is a square white flag with a blue patch in the center; the fourth is a square white flag with a blue patch in the center; the fifth is a square white flag with a blue patch in the center; the sixth is a square white flag with a blue patch in the center; the seventh is a square white flag with a blue patch in the center; the eighth is a square white flag with a blue patch in the center; the ninth is a square white flag with a blue patch in the center; the tenth is a square white flag with a blue patch in the center.

The various numbers used are divided into several classes. The first class comprises, let us say, all numbers from a unit to seven thousand; and opposite each number in the signal book is the name of a vessel, her port of registry and her tonnage, as we saw in the case of the Edson. The second class of numbers comprises all from seven thousand to twelve thousand, and opposite to each is the name of a port, a shoal, a beacon or a light-house. The third class comprises all from twelve to thirty thousand, opposite each being a word; and the fourth class comprises all from thirty to fifty thousand, with a sentence from three to twenty words opposite each.

A sort of nautical, geographical and general information may be exchanged by these strips of bunting; but ships always speak briefly and to the point.

The code is being revised, and on September 1st, 1880, the new system will be adopted by France, Germany, Russia, the United States, Italy, Spain, Portugal, Great Britain, Belgium, Denmark, Sweden, the Netherlands, Austria, Hungary, Greece and Chili.—Wm. H. Rideing, in *Wide Awake*.

The Pebble in the Wall.

A pebble, as geologists often use the word, is any rounded stone without regard to its size. Pebbles may be small enough to be carried in a shepherd boy's pouch as sling-stones, or they may be several inches or even feet in diameter. The cobble-stones paving the village streets are pebbles, and the round stones built into many a mile of stone wall in some parts of the country are only larger pebbles.

How came these stones to be round? An apple or an orange grows round upon the tree. But stones do not grow. Stones begin as pieces broken off from some ledge of rock. At the foot of any ledge one can see that stones break off in angular shapes. Some are flat, some are cubical, some are diamond-shaped, and all sorts of irregular forms appear. Just as a workman making macadamized road breaks up the stone into fragments of every shape with his hammer, so rain and frost break off all sorts of fragments from the ledge, and these are broken still again by falling on one another. Among all the pieces at the

foot of the ledge you will almost never find a round one.

How, then, has it come about that there are so many rounded stones in all our fields? Did God make them round at the creation? We might perhaps think so, if He did not show us in every mountain brook and on the shores of our lakes and the sea His machinery still at work turning angular stones into rounded ones.

By watching the action of the waves on a pebbly beach any one can see for himself how constantly the stones along the shore are kept rolling over one another by the motion of the waves. Almost everything we can now find upon the beach had the angles and corners worn off long ago, but now and then some fragment shows the rounding process still under way.

Brooks and rivers also, especially if they are broken by rapids or waterfalls, will show the observer how "the waters were the stones." When the streams are high, stones are rolled along in the current and become more or less rounded by striking against one another and against the bottom. Where a stream pours over a ledge a basin will be found below in which the deep water boils like a pot or whirls about in strong eddies, dashing the stones against one another. In every such place the stones will become rounded, for the corners will of course break off more easily than the stones will break in two.

One will seldom find anything larger than cobble-stones in our streams at the present day, and nearly all the stones along still reaches of the streams are beds of sand, each grain of which is a small particle probably broken from the larger stones in the process of rounding them. All these things almost any boy or girl, whose eyes are open and who does not live on the prairie, may see right about home, and find the stones worth looking at and talking about. In ways like these we may believe that the pebbles of all sizes, in the fields, the streets, the walls, were rounded by the action of water. We may not only say that God made them round, but see how He shaped them as they are. The pebbles are troublesome enough sometimes in the garden, but every one of them tells a long and exciting story of frost and storm and flood to those who know how to read it.—*Christian Union*.

Animal Intelligence.

In a lecture on Animal Intelligence delivered not long since before the British Association Prof. George T. Romanes laid down the extraordinary proposition that "the only difference between animal intelligence and human intelligence consists in this: that animal intelligence is unable to elaborate that class of abstract ideas the formation of which depends on the faculty of speech." This is a startling doctrine, and yet some of the authentic anecdotes embodied in an article on this subject in the current *Westminster Review* seem to go far to support it. What, too, are we to say of the act of the Mount St. Bernard dog at Salem last week mentioned in yesterday's *Evening Post*, when this sagacious creature, seeing a child on a railroad track over which a train was swiftly approaching, dashed forward in the nick of time and dragged the little one from the point of danger?

The amazing intelligence of the Scotch collie dog, which will bring home in safety from long distances whole flocks of sheep without leaving one behind, and which will even separate its master's sheep from others when they become intermingled, if not indicative of reason gives token of a faculty which for the purpose in hand is not inferior to it. Dr. Lindsay, in fact, directly claims for certain of what we call the lower animals an intelligence greater than that of the human savage; and there are feats recorded of various animals in the *Westminster* paper referred to of which probably millions of human beings would be quite incapable.

An incident for which we can vouch has never to our knowledge been given in print, and is a contribution worth preserving to the discussion in hand. A gentleman was induced by the skepticism of some friends to make a wager to the following effect: He undertook to send a favorite dog, a Newfoundland, from a place more than a mile from his house for a flute which was to be put in its usual case in the owner's room. The doors of the house were to be closed and no one was to accompany or direct the dog in any way whatever after he received the instructions of his master. The dog actually accomplished the feat. He got into the house by a window opening on a piazza, made his way to the room, found the flute and took it safely to its destination. The sagacious creature had been used to carry the flute for his master, who was a brilliant amateur, and had of course been previously shown where to look for it in the room. The same animal often took pennies to the butcher's and bought his own meat.

It must be admitted that there are some domestic servants, to say nothing of the savages referred to by Dr. Lindsay, whose intelligence might easily fall short of that of the shaggy hero of this little story.—N. Y. *Evening Post*.

The conductor after punching her ticket handed it back to the old lady to be held, of course, until he should collect the tickets at the other end of the road. She looked at the hole made in the ticket and then threw it out of the window. When the conductor made his final trip through the train, she told him what she had done. "What did you do that for?" he asked in amazement. "Faith, an' if yez didn't want it, shure I didn't neither, an' I flung it out, the little hole yez made in it an' all."—*Exchange*.

An Irishman who had a pig in his possession was observed to adopt the constant practice of filling it to repletion one day and starving it the next. On being asked his reason for doing so, he replied, "Och, sure, an' isn't it that I like to have bacon with a stroke o' fat and a stroke o' lane aqually, one after the other?"

The happiness of your life depends upon the quality of your thoughts; therefore, guard accordingly, and take care that you entertain no notions unsuitable to virtue and unreasonable to nature.—*Marcus Antoninus*.